

**INTEGRATED CIRCUIT STRUCTURES AND METHODS EMPLOYING
A LOW MODULUS HIGH ELONGATION PHOTODIELECTRIC**

Abstract of the Disclosure

Structures and methods are provided for absorbing
5 stress between a first electrical structure and a second
electrical structure connected together, wherein the
first and second structures have different coefficients
of thermal expansion. A dielectric material is disposed
on at least one of the first and second electrical
10 structures. This dielectric material is a low modulus
material which has a high ultimate elongation property
(LMHE dielectric). Preferably, the LMHE dielectric has a
Young's modulus of less than 50,000 psi and an ultimate
elongation property of at least 20 percent. The LMHE
15 dielectric can be photo patternable to facilitate
formation of via openings therein and a metal layer is
formed above the LMHE dielectric which has conductors
capable of expanding or contracting with the dielectric.
Conductors of the metal layer disposed above the
20 dielectric and connected to vias in the dielectric have a
length significantly greater than the maximum
displacement due to thermal expansion between the first
and second electrical structures, e.g., a length which is
at least five times the displacement.